# Writing Word Problems to Solve Equations

1. It took Lisa 85 minutes to wash three cars. She spent *x* minutes on each car and 10 minutes putting everything away. Solve 3*x* + 10 =85 to find how long it took to wash each car.

2. Haley bought 6 glasses and 6 mugs. Haley knows that she was charged $3.99 for each mug and that the total bill before tax was $65.88. Determine how much Haley was charged for each glass.

A. $4.99

B. $5.50

C. $7.00

D. $6.99

3. The $347 selling price for a stereo is $35 more than 3 times the wholesale cost. Determine the wholesale cost.

A. $104

B. $115

C. $242

D. $300

4. An online music club sells mp3 playlists for $15.95 plus a $2.95 fee. If Kara’s total bill is $98.65, which equation can be used to find p, the number of playlists she bought?

A. $15.95 +$ 2.95 = $98.65

B. $15.95 +$2.95p = $98.65

C. $ 15.95 + p + $2.95 = $ 98.65

D. $15.95p + $2.95 = 98. 65

5. Hannah wants to hire a painter to paint her house. Painters Plus charges $360 plus $12 per hour. Davis & Sons charges $279 plus $15 per hour. Determine the number of hours for which the two costs would be the same.

A. 27

B. 15

C. 12

D. 20

6. In the last student council elections, **Jill** got “v” votes. **Morgan** got twice as many votes as Jill. **Trish** won the election with 7 more votes than Morgan. If 327 students voted in the election, determine an equation that can be used to find v, the number of votes.

A. v + (2+v) +7 =327

B. v + 2v + (2v+7) = 327

C. v +2v+ (2v+v) = 327

D. v + (2+v) +7 =327v

Using the correct equation above, how many votes did Jill, Morgan, and Trish earn?

7. A long-distance phone company charges $4.99 per month plus $.10 per minute. Determine how many minutes were used in a month if the monthly bill is $16.99.

A. 250

B. 10

C. 120

D. 25

8. At the Beltway Outlet store, you buy *x* computer games for $13 each and a magazine for $4. Write an expression in simplest form that represents the total amount of money you spend.

A. x+17

B. 13x+4

C.13x +4x

D. x+ 13x+4

9. While at the music store, Drew bought 5 CDs, all at the same price. The tax on his purchase was $6,

and the total was $61. What was the price of each CD?

10. Laura is making a patio in her backyard using paving stones. She buys 44 paving stones and a flowerpot worth $7 for a total of $73. How much did each paving stone cost?

11. Marcus works as a salesman at a car dealership. He is paid a base salary of $1,354.41 each month, and he receives a commission of $158.87 for each vehicle he sells. If last month Marcus earned $8,503.56, how many cars did he sell last month?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | 45 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | 30 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | 90 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | 107 |

12. Erica went shopping for new clothes for school. She bought a pair of jeans for $44.59 and several shirts for $12.25 each. If *x* represents the number of shirts she bought, which of the following equations should be used to find *y*, the total cost of Erica's shopping trip?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | *y* = $12.25*x* + $44.59 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | *y* = $44.59*x* + $12.25 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | *x* = $12.25*y* + $44.59 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | *x* = $44.59*y* + $12.25 |

13. Ann is moving from Houston to McKinney and rented a truck from U-Move truck rentals. The cost of a one-day truck rental is given by

*C*(*m*) = 0.5*m* + 35,

where *m* is the number of miles driven. If Ann drives 280 miles, what is the cost of the truck rental?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | $175 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | $203 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | $140 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | $180 |

14. Fancy Flowers charges $24 for a standard seasonal arrangement in a glass vase. Additional seasonal flowers cost $1.10 per flower. If a customer paid $38.30 for the standard arrangement plus extra flowers, how many extra flowers did they order?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | 13 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | 20 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | 10 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | 23 |

15. Carson is a salesman at an insurance company. He receives a monthly salary of $1,075.00 and a $241.00 commission on each policy he sells. If Carson receives his commission check at the end of the month along with his salary check, which of the following equations can be used to determine his total pay for the month.  
(Let *x* represent the number of policies sold and *y* represent the total amount of pay for the month.)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | *y* = 1,075*x* + 241 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | *y* = 24.1*x* + 1,075 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | *y* = 241*x* |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | *y* = 241*x* + 1,075 |

16. The senior class officers have figured out that the prom will cost $4,000 for location rental and decorations and another $52 per person for food.  
  
Write an equation in general form that expresses the cost of the prom in dollars, *y*, as a function of the number of people who attend, *x*.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | *x* + 52*y* = -4,000 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | *x* + 52*y* = 4,000 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | 52*x* - *y* = 4,000 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | 52*x* - *y* = -4,000 |

17. Michelle and her 3 pets moved into a new apartment. The management charges a non-refundable deposit of $40 per pet. Her monthly rent is $950. Michelle has currently spent $2,970 on rent and pet deposits. Assuming she has not acquired any new pets, how many months has she lived in her new apartment?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | 5 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | B. | 2 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | 3 |

18. Three friends share the cost of a pizza. The base price of the pizza is *p* and the extra toppings cost $4.50. If each person’s share was $7.15, which equation could be used to find *p*, the base price of the pizza?

1. 
2. 
3. 

D. 

19. Cassidy is going to the county fair with her friends but can only stay at the fair for 3 hours. The fair offers two different pricing structures. Cassidy can purchase an all-day pass with unlimited rides for $45.00 or she can pay an admission fee of $9.00 and pay $4.00 for each ride. If Cassidy rides 15 rides, how much does she save by buying the all-day pass?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | A. | $33.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Bubble | B. | They both cost the same. |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | C. | $63.00 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | D. | $24.00 |

20. One-fourth the distance between two cities **is** 100 miles less than two-thirds the distance between the cities. Which equation expresses this situation?

1. 
2. 
3. 
4. 